

WHAT IS CLAIMED IS:

1. A digital power amplifier comprising:
at least one pair of switching sections having first
and second switching elements respectively including
5 a unipolar transistor, which form a pair inserted in
series between a high potential power supply line and
a low potential power supply line, in which the pair
of said first and second switching elements are basically
made to operate complementarily, and when switching the
10 switching element which has been switched on, dead time
during which the both switching elements are switched
off is provided, to control power supply to a low-pass
filter;

wherein in said switching section, said first
15 switching element, a first coil, a second coil and said
second switching element are connected in series in this
order, between said high potential power supply line
and the low potential power supply line, and

the switching section comprises a first high-speed
20 diode in which a cathode is connected to said high
potential power supply line, and an anode is connected
to a node between said second coil and said second
switching element, and a second high-speed diode in which
a cathode is connected to a node between said first
25 switching element and said first coil, and an anode is
connected to said low potential power supply line, and

the node between said first coil and said second
coil is connected to said low-pass filter side.

2. A digital power amplifier comprising:
an analog amplifier which amplifies an input analog
signal;
5 a low-pass filter including a coil and a first capacitor;
and a digital amplifier block which converts the output
of said analog amplifier to a PWM signal, and controls
power supply to said low-pass filter;
wherein a series circuit comprising a second
10 capacitor and a resistance is applied as a feedback
circuit which feeds-back a node voltage between the coil
and the first capacitor of said low-pass filter to said
analog amplifier, and the series circuit has a damper
function for damping a high pass peak in the frequency
15 response characteristic of said low-pass filter, which
occurs when a load is not connected to said low-pass
filter, or a high impedance load is connected thereto.